

CLAIMS

We claim:

- 1 1. A method of processing user criteria to retrieve a portion of data and display it
2 to the user, the method comprising:
3 receiving user criteria that specifies a subset of the data with respect to multiple data
4 criteria;
5 retrieving the data subset from the data; and
6 displaying the data subset in a display defined by a two-dimensional field array of
7 information, wherein the field array of the display is divided into a plurality of two-
8 dimensional bounded field areas, each of which has a display area that is indicative of a first
9 data criteria of the data subset, and wherein the area of each bounded field areas is further
10 divided into subfield areas, each of which has an area that is indicative of a second data
11 criteria of the data subset; and
12 displaying a subfield detail window adjacent to one of the subfield areas in response
13 to moving a display cursor over a boundary of the bounded subfield area to show data
14 relating to the bounded subfield area, and displaying a menu window adjacent to the bounded
15 subfield area in response to a mouse click on the bounded subfield area such that the menu
16 window shows information relating to the bounded subfield area data subset and can receive

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17 user criteria from the user to specify additional information relating to the bounded subfield
18 area.

1 2. A method as defined in claim 1, wherein the menu array window specifies
2 information relating to the bounded subfield area.

1 3. A method as defined in claim 1, wherein the subfield detail window remains
2 in display as long as a display cursor is located over the subfield area.

1 4. A method as defined in claim 1, wherein the menu array window includes one
2 or more hyperlinks for an offering represented by the bounded sublevel area.

1 5. A method as defined in claim 1, wherein each subfield area includes an
2 attribute that is indicative of a third data criteria of the data subset.

1 6. A method as defined in claim 5, wherein the attribute of the subfield display
2 areas is screen color, such that screen color indicates the magnitude of the third data criteria.

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1 7. A method of presenting information regarding plural products on a computer
2 display screen for perusal and selection by a user, the method comprising:

1 11. A method as defined in claim 7, wherein the bounded subfield area has a
2 second attribute that is indicative of a second characteristic of the corresponding product.

1 12. A method as defined in claim 11, wherein the first attribute of the bounded
2 subfield area comprises the size of the bounded subfield area and the second attribute of the
3 bounded subfield area comprises the color of the bounded subfield area.

1 13. A method as defined in claim 7, wherein subfield areas that represent a
2 particular product having a first characteristic are grouped together with subfield areas that
3 represent products that have a characteristic similar to the first characteristic.

1 14. A method as defined in claim 7, wherein the first visible attribute of the
2 subfield areas is indicative of the price of the corresponding product.

1 15. A method as defined in claim 7, additionally comprising displaying a field
2 detail window adjacent to one of the bounded subfield areas in response to moving a display
3 cursor over a boundary of the bounded subfield areas to show data relating to the product
4 corresponding to the bounded subfield area.

1 16. A method as defined in claim 7, additionally comprising displaying a menu
2 box adjacent to a bounded subfield area in response to a mouse click on the bounded subfield

3 area, wherein the menu box includes menu items that may be selected for accessing
4 information related to one or more of the products.

1 17. A method as defined in claim 7, wherein each subfield area represents a coffee
2 product that is available for purchase and wherein subfield areas that represent coffee
3 products of a common type are grouped within a common field area.

1 18. A method as defined in claim 17, wherein the first attribute of each subfield
2 area is the two-dimensional screen size of the subfield area and wherein the two dimensional
3 size of each subfield area is indicative of a purchase price of the product represented by the
4 subfield area.

1 19. A device for displaying information on a computer display screen for perusal
2 and selection by a user, the information being related to plural data elements, each data
3 element belonging to a data category and being defined by one or more dimensions of a given
4 magnitude, the device comprising:

5 one or more bounded field areas on the display screen, each bounded field area
6 corresponding to a particular data category, wherein each bounded field area is divided into
7 one or more bounded subfield areas, each bounded subfield area corresponding to and
8 representing a particular data element, wherein each of the bounded subfield areas has a first
9 attribute that is indicative of a first dimension of the corresponding data element, and wherein

10 all of the bounded field areas and subfield areas are simultaneously viewable within a single
11 viewable region of the computer display screen;

12 a field detail window on the computer display screen located adjacent to one of the
13 bounded subfield areas in response to a display cursor being located over a boundary of the
14 bounded subfield area, the field detail window showing the magnitude of one or more
15 dimensions of the data element corresponding to the bounded subfield area;

16 a menu window on the computer display screen adjacent one of the bounded sublevel
17 areas, the menu array window appearing in response to a mouse click on a bounded subfield
18 area, the menu array window including an option to insert the data element corresponding to
19 the bounded subfield area into a shopping cart;

20 a button item on the computer display screen by which the data elements in the
21 shopping cart may be accepted by the user.

1 20. The device as defined in claim 19, wherein each of the bounded subfield areas
2 has a second attribute that is indicative of a second dimension of the corresponding data
3 element.

1 21. The device as defined in claim 19, wherein the first attribute of each of the
2 bounded subfield area is a two-dimensional size of the bounded subfield area.

1 22. The device as defined in claim 20, wherein the second attribute of each of the
2 bounded subfield area is a screen color of the bounded subfield area.

1 23. The device as defined in claim 19, wherein the data elements are descriptive
2 of products that are available for purchase.

1 24. The device as defined in claim 23, wherein the data elements are stored in a
2 data store that is local to the computer device.

1 25. The device as defined in claim 19, wherein each data element corresponds to a
2 product that is available for purchase and wherein the dimensions of a data element include
3 the price of the corresponding product.

1 26. The device as defined in claim 19, wherein the menu array window provides
2 the option to accept criteria by which the user can cause the computer to revise the attributes
3 of the bounded subfield areas to be indicative of a different set of dimensions of the subfields
4 within a particular data category.

1 27. The device as defined in claim 19, wherein the menu array window provides
2 the option to accept criteria by which the user can cause the computer to display only data
3 elements having a dimension within a given value range.

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1 28. The device as defined in claim 19, wherein the data elements describe
2 products that are available for purchase and wherein the button item allows the user to initiate
3 a purchase transactions with respect to any data elements in the shopping cart.

1 29. A computer device having an internal memory containing computer readable
2 code comprised of a set of instructions that will cause the computer device to execute the
3 following functions:

4 accept user criteria for obtaining a subset of data related to products that are available
5 for purchase;

6 retrieve a data subset that meets the user criteria, the data subset comprised of one or
7 more data elements, each data element being related to one or more products, and;

8 generate a tree map display that is representative of the data subset, wherein the tree
9 map display comprises:

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10 plural bounded field areas, each bounded field area corresponding to a product
11 category, wherein one or more of the bounded field areas is divided into plural
12 bounded subfield areas, each of the bounded subfield areas corresponding to and
13 representing a product, and wherein each bounded subfield area has a first visible
14 attribute that is indicative of a first characteristic of the corresponding product,
15 wherein the plural bounded field areas and the bounded subfield areas are all
16 contained within a single viewable region of a computer display screen;

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a menu item that provides the user with the ability to insert any product corresponding to a subfield areas into an electronic shopping cart;

a shopping cart item that provides a tally of any products that have been inserted into the shopping cart;

a selectable item that initiates a purchase transaction of all of the items in the shopping cart.

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30. The computer device of claim 29, wherein the tree map display additionally comprises a field detail window on the computer display screen located adjacent to one of the bounded subfield areas in response to a display cursor being located over a boundary of the bounded subfield area, the field detail window including information related to the product that corresponds the subfield area upon which the display cursor is located.

31. The computer device of claim 29, wherein the first visible attribute of each of the bounded subfield areas is the screen size of the bounded subfield area.

32. The computer device of claim 29, wherein each bounded subfield area has a second visible attribute that is indicative of a second characteristic of the corresponding product.

1 33. The computer device of claim 32, wherein the second visible attribute
2 comprises the screen color of the subfield area.

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